

AMENDMENTS TO THE CLAIMS

Claims 1-9. (Cancelled)

10. (Currently Amended) A line switching device comprising:

a branching section branching signals in a predetermined wavelength band contained in a signal wavelength band from signals propagating through an optical transmission line in an optical communication network; and

a dispersion compensating module comprising:

an input end for introducing signals which propagate in said optical transmission line;

an output end for launching the signals introduced from the input end to said optical transmission line;

a plurality of dispersion compensators provided between said input end and said output end, each of said dispersion compensators having a dispersion of sign opposite to that of a dispersion of said optical transmission line in the signal wavelength band; and

one or more branching optical switches provided between each of said plurality of dispersion compensators, each of said branching optical switches having a first port for inputting the signals from an adjacent dispersion compensator positioned upstream as viewed from a traveling direction of the signals, a second port for outputting the signals from said first port to an adjacent dispersion compensator positioned downstream, and a third port for conducting the signals from said first port to a branch line different from an optical path constituted by said

plurality of dispersion compensators, according to claim 1, said dispersion compensating module compensating for the dispersion of said optical transmission line, in the predetermined wavelength band containing the signals branched by said branching section.

11. (Original) A line switching device according to claim 10, wherein said branching section includes an add drop multiplexer.

12. (Original) A line switching device according to claim 10, wherein said branching section includes an optical cross connect.

13. (Original) A line switching device according to claim 10, further comprising a control section for controlling a branching function of said branching section and a port switching operation of each of said optical switches in said dispersion compensating module in a mutually interlocked relation.

14. (Original) A dispersion compensating module according to claim 10, wherein the signals branched by said branching section includes a pilot signal indicative of a signal source which has transmitted the signals,

wherein said line switching device further comprises a receiving section receiving the pilot signal contained in the signals and a control section for controlling a port switching operation in each of said optical switches in said dispersion compensating module on the basis of the pilot signal received by said receiving section.

15. (Currently Amended) An optical communication system comprising:

a dispersion compensating module, for compensating for a dispersion of an optical transmission line in a signal wavelength band, comprising:

an input end for introducing signals which propagate in said optical transmission line;

an output end for launching the signals introduced from the input end to said optical transmission line;

a plurality of dispersion compensators provided between said input end and said output end, each of said dispersion compensators having a dispersion of sign opposite to that of a dispersion of said optical transmission line in the signal wavelength band; and

one or more branching optical switches provided between each of said plurality of dispersion compensators, each of said branching optical switches having a first port for inputting the signals from an adjacent dispersion compensator positioned upstream as viewed from a traveling direction of the signals, a second port for outputting the signals from said first port to an adjacent dispersion compensator positioned downstream, and a third port for conducting the signals from said first port to a branch line different from an optical path constituted by said plurality of dispersion compensators according to claim 1; and

a control section for controlling port switching of an optical switch included in said dispersion compensating module, thereby adjusting a dispersion compensation amount for signals passing through said dispersion compensating module.

16. (Original) An optical communication system according to claim 15, further

comprising an optical transmission line provided between a first station and a second station and constituted by a plurality of lines, and

wherein said control section selects one of said plurality of lines as a signal propagation line from said first station to said second station when adjusting the dispersion compensation amount in said dispersion compensating module.

17. (Original) An optical communication system according to claim 16, wherein said control section performs a selection of said signal propagation line and an adjustment of the dispersion compensation amount in said dispersion compensating module.

18. (Original) An optical communication system according to claim 15, wherein said dispersion compensating module is provided in at least one of said first station, said second station and a repeater provided between said first station and said second station.

19. (Original) An optical communication system according to claim 15, wherein said optical transmission line includes a ring-type network.

20. (Original) An optical communication system according claim 15, wherein at least one of signal channels in the signal wavelength band is a signal channel contained in a wavelength range of 1,530 nm to 1,565 nm.

21. (Original) An optical communication system according to claim 15, wherein at least one of signal channels in the signal wavelength band is a bit rate of 10 Gb/s or more.